



WALL MOUNTED PANEL (MARK 4A)
TERMINAL LAYOUT FRONT VIEW

WALL MOUNTED PANEL (MARK 4A)
DOOR LAYOUT FRONT VIEW

NOTES

- THIS DRAWING SHOWS THE NEW TRANSFORMER PROTECTION PANEL LAYOUT FOR SUBURBAN DISTRIBUTION SUBSTATIONS. IT INCORPORATES OPTICAL ARC FLASH DETECTION AND THERMAL TRIPPING FROM THE TRANSFORMER THERMAL RELAY.
- LABELS ARE TO BE MADE AS SHOWN ON DRAWING 178241-1. FOR 5mm LINK ASSEMBLY REFER DRAWING 507111-1. FOR 5mm LABELS REFER TO DRAWINGS 50996-2, & 64825-2.
- DRILLING ARRANGEMENT SUITS A MARK 4A WALL MOUNTED RELAY PANEL. PANEL DEPTH TO BE 300mm, SEE DRAWING 28632-1.
- RELAY NAMING CONVENTION ALTERED TO INDICATE MULTIPLE PROTECTION FUNCTIONS COVER BY THE SAME RELAY.
- ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR LABELS WITH #, SUBSTITUTE THE RELEVANT TRANSFORMER NUMBER.
- THIS DRAWING IS TO BE USED WHEN A DRY TYPE TRANSFORMER IS INSTALLED. THE THERMAL RELAY (Tn) AND A TRIP INDICATOR ARE TO BE CONNECTED. THE THERMAL RELAY IS LOCATED AND SUPPLIED ON THE TRANSFORMER BY THE TRANSFORMER MANUFACTURER. THE TRIP INDICATOR IS LOCATED ON THE TRANSFORMER PROTECTION PANEL AND IS SUPPLIED BY AUSGRID.
- STANDARD WARNING LABEL TO HIGHLIGHT THE 415V AC HAZARD TO BE MOUNTED AS SHOWN BOTH FRONT AND BACK OF THE PANEL DOOR.

TITLE	DWG No.
RMICB SUBSTATIONS WITH E TYPE LV BOARD AC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER DC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT DC SCHEMATIC	227350-3
RMICB SUBSTATIONS WITH E TYPE LV BOARD DC SUPPLY CABLE LOOPING AND SCADA SCHEMATIC	227350-4
RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTIN PANEL WITH OPTICAL AFD STYLE 2 LAYOUT AND LABEL DETAILS DIAGRAM	227352-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 WIRING DIAGRAM	227352-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 CABLE CONNECTION DIAGRAM	227352-3
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM	227355-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227355-2
E TYPE LV BOARD MERLIN GERIN MASTERPAC TP AIR CIRCUIT BREAKERS EXTERNAL CONNECTIONS FOR AFD DIST. SUBSTATIONS	227357-1
WALL MOUNTED RELAY PANELS DETAILS	28632-1
E TYPE LV BOARD ACCEPTABLE COMBINATIONS	178227-1
REFERENCE DRAWINGS	

AMENDMENTS						
AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
3	08/08/2023	AMENDED TXP-B RELAY TYPE AS SHOWN.	L.M.	L.M.	M.B.	M.B.
4	12/06/2024	AMENDED TXP-B RELAY TYPE AS SHOWN. AC & DC LINKS NOW 5mm TYPE, LAYOUT & LABEL SIZES AMENDED FOR CHANGES.	L.M.	L.M.	M.B.	M.B.
5	19/09/2024	REPLACED SCHNEIDER P115 WITH SIEMENS 7SR4504 IN LEGEND & PANEL LAYOUT.	L.M.	L.M.	M.B.	M.B.

TAGNAME	MFG	CATNO	DESC	REF DWG
BL_LK_TL	EUGAQUIP	MOULDED TYPE MS	BATTERY/TEST LINK	507111
DIFF	-	K3M	DIFFERENTIAL FUSE RELAY	113243
EB	-	EARTH BAR	EARTH BAR	-
FS1 FS2	ALSTOM	6520P Black	FUSE - 2 STUD BACK CONNECTED	-
LV OC&EF-A	SIEMENS	7SR4504-2H20-1A0	OVERCURRENT & EARTH FAULT RELAY	260111
TXP-B	SCHWEITZER	SEL-751A	TRANSFORMER PROTECTION RELAY	222616
TI-1	RMS	3A32K37	TRIP INDICATOR TI-3 (0.2 ohm)	123399
VTT	MULTI CONNECT (RS COMPONENTS)	SLB4-G	INSULATED TEST PANEL SOCKETS 1 x RED 23 3020 27 (40x-24x) 1 x WHITE 23 3020 29 (40x-25x) 1 x BLUE 23 3020 23 (40x-24x) 1 x BLACK 23 3020 21 (40x-20x)	231228
X1, X2, X5, X10	UTILLUX	3820	RAIL MOUNTED TERMINAL	118547
X6, XT	UTILLUX	3820	RAIL MOUNTED TERMINAL	118547
X8	UTILLUX	H2238	RAIL MOUNTED TERMINAL - ORANGE	-
X50, XT	UTILLUX	3820	RAIL MOUNTED TERMINAL	118547
X5	WEIDMULLER	SAK 2.5	RAIL MOUNTED TERMINAL CAT No. 21966	-
X6	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
LEGEND				

LABEL DETAILS						
LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
1	C8	GRAVDPLY No 200 WHITE/BLACK	LINE 1	8	TRANSFORMER No.#	1
2	C7	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL RELAY	1
3	C7	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	LV OC & EF RELAY	1
4	C7	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER THERMAL TRIP INDICATOR	1
5	C7	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER & ARC FLASH RELAY	1
6	5C10	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C OVERCURRENT & EARTH FAULT RELAY 2~ CT TEST LINKS	1
7	5C10	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C OVERCURRENT & EARTH FAULT RELAY 3~ DELTA TEST LINKS	1
8	5C10	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C TRANSFORMER & ARC FLASH RELAY 5~ TEST LINKS	1
9	5C1	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	A B C N TRANSFORMER PROTECTION H.V. CT TEST LINKS 6~	1
10	5C10	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	N# EARTH FAULT CT TEST LINKS 7~	1
11	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No 1 ARC FLASH BATTERY LINK 2B	1
12	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 1 ARC FLASH TRIP LINK 3B	1
13	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No 2 ARC FLASH BATTERY LINK 6B	1
14	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 2 ARC FLASH TRIP LINK 7B	1
15	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No 3 ARC FLASH BATTERY LINK 11B	1
16	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 3 ARC FLASH TRIP LINK 12B	1
17	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	ARC FLASH BYPASS BATTERY LINK NORMALLY OPEN 15B	1
18	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 1 CURRENT CHECK LINK 4B	1
19	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 1 CURRENT CHECK TRIP LINK 5B	1
20	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 2 CURRENT CHECK LINK 8B	1
21	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 2 CURRENT CHECK TRIP LINK 9B	1
22	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 3 CURRENT CHECK LINK 13B	1
23	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No 3 CURRENT CHECK TRIP LINK 14B	1
24	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER HV OC BATTERY LINK 16B	1
25	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER LOAD RELIEF BATTERY LINK 17A	1
26	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL BATTERY LINK 18A	1
27	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER OC & EF BATTERY LINK 19A	1
28	5C2	GRAVDPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER THERMAL BATTERY LINK 20A	1
29	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.1 TRIP LINK 21A	1
30	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.2 TRIP LINK 22A	1
31	C12	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FS1 FS2 10B 1B 48V & 30V B MASTER BATT FUSES & LINKS	1
32	C3	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	10A 1A 30V MASTER BATT LINKS	1
33	C23	GRAVDPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	A B C N 415V AC VOLTAGE TEST TERMINALS	1

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SCALE	1:2
DESIGNED	-
DRAWN	L.MARTINUZZI
CHECKED	W.BYRNE
APPROVED	M.BENNETT
DATE	15/06/2012
TRIM REF	-
PROJECT NUMBER	SM-06717

RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER WALL MOUNTED PROTECTION PANEL WITH OPTICAL AFD STYLE 2 LAYOUT AND LABEL DETAILS DIAGRAM

ISSUED FOR CONSTRUCTION

DRAWING No **227352** SHEET 1 AMD 5 SIZE A0

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